

Page 116 - Rediscovering the Sanctuary

Maud Cunnington excavated the Sanctuary in 1930 with her husband Ben and a small team of workmen under the direction of Will Young. But first the Sanctuary had to be located. A few years earlier the Cunningtons had excavated Woodhenge, which was discovered from aerial photographs; the Sanctuary though, was not visible from the air and its exact location was unknown. Cunnington wrote that she attempted to find it first by using Stukeley's 1723 sketch, but "it gave little help." She eventually followed up Stukeley's claim that the head of his imagined serpent (the Sanctuary) could be seen from its tail.

Stukeley believed that the Beckhampton Avenue had once terminated near a group of round barrows at *Fox Covert*, three-quarters of a mile west of the Beckhampton roundabout. Stukeley had described this as the "serpent's tail" terminating "near a fine group of barrows under Cherhill-hill" and claimed that "in this very point only you can see the temple on Overton-hill, on the south side of Silbury-hill." Cunnington reported: "On going to this spot it was found that a small triangular patch of Mill Field, 2½ miles away, could be seen, and by counting the telegraph poles visible along the roadside, it became easy to define the possible area on which the Sanctuary must have stood." ("The "Sanctuary" on Overton Hill, near Avebury" by M.E. Cunnington, WAM 45, pp. 300 – 335.) Stukeley and Cunnington both described viewing the Sanctuary from a specific place but neither supplied a map reference for it.



Above: The Sanctuary from Fox Covert



The telegraph pole, now removed

Fox Covert is a partly wooded area sited on a knoll; there is a point at the eastern end of the knoll from where the Sanctuary can be seen. It is just west of a ditch marked on the OS map as *Harepit Way*. (51° 25.111'N, 1° 53.414'W SU 07730 68840) Stukeley exaggerated slightly in claiming that the Sanctuary is visible "from this point only" but the viewing area is not large. Mill Field can be seen, just as Cunnington described, as a distant triangle. Placing a ruler across the OS map between this point and the Sanctuary demonstrates why the sightline is so tight: it passes the south side of Silbury very close to the A4 road, at the lowest point of a narrow valley. The Romans may also have exploited this same sightline to the Sanctuary in laying out their road. Some OS maps shows the Roman road as a dotted line approaching Silbury from the west - it is clear that Silbury was used as a direction marker. Just south-west of Silbury the road changes direction and for a short section it is aligned to the Sanctuary before changing direction again. At that time the Avenue would still have been complete, so the stones of its section running along Mill Field to the Sanctuary may have been conspicuous from some distance away.



Above: Part of a large group of round barrows sited on Overton Hill, close to the Sanctuary.

The Cunningtons' five-week excavation began in late May 1930; on the third day some stone holes of the outer circle were found and the monument's layout determined. The work continued until all the stone positions of both circles were found. In the process, the previously unsuspected wooden post holes were discovered. This was a surprise, as the team were only looking for two concentric stone circles. The Cunningtons called in Will Young, an experienced archaeologist who had worked with Keiller on the excavations at Windmill Hill. There was intense rivalry between the Cunningtons and Alexander Keiller, who was desperate to know what was going on at the Sanctuary but was not

allowed on site, due to some previous spat. It now seems that Keiller persuaded Young to keep a detailed diary of the dig's progress and discretely feed back information; Keiller later employed Young and paid for the diaries to be bound for his own archive in Avebury. (Pitts, 1999, WANH) Maud Cunnington also kept records of the excavation and published her findings in WAM. (45, 1930) However her report and conclusions differ from Young's in some respects.

Keiller was very proud of his own modern surveying equipment and rather dismissive of the Cunningtons' which, he claimed, amounted to little more than an old and stretched 30 foot tape, a broomstick "notched to feet" and Maud Cunnington's umbrella, which she allegedly used as a measuring stick. The 1930 excavation team included Colonel Robert Cunnington, an army-trained surveyor; he may have brought along his own equipment, as the survey seems to have been quite accurate. All of the dimensions recorded in 1930 were in feet and inches; they are presented below in their original form.

Excavation of the post and stone holes resulted in a few finds of pottery, flint and stone; there was also a *Beaker Burial*. The "much-crouched skeleton of a youth some 14 or 15 years of age" was found in a shallow grave on the inner side of stone hole 12 of ring C – the 'stone and post ring'. Number 12 is the eastern-most stone of that ring. The skeleton was laid on its right side, its head to the south and feet to the north, so facing east. The arms were crossed and hands placed over the face; several charred animal bones were also found, apparently laid on top of the body when it was buried. In front of the legs were the fragments of a beaker. Nearly all of the bones were broken, the skull and beaker crushed flat; Cunnington thought the damage may have occurred when the stone was toppled and removed. She also thought it probable that the body had been interred at the same time as the stone was erected, as "the grave and the stone hole cut into one another, and the body must have almost, if not quite, touched the inner face of the stone at the time of burial, if the stone was already standing".

The skeleton was sent to the Royal College of Surgeons in London, which held a sizeable archaeological collection. In 1941 the college was bombed and for many years all of its collection was thought to have been lost. Many of the skeletons did survive though, as they had been quietly moved to the countryside during the war; in the 1950s they were re-housed in the Natural History Museum. The Sanctuary skeleton was rediscovered in 1999 but its sex can still not be determined. (M. Pitts, 2001, "Excavating the Sanctuary: New Investigations on Overton Hill, Avebury", WANHS Vol 94 (2001), pp 1-23)

Cunnington's plan (see page 116) shows the positions of stones in red, and postholes in black. The seven concentric rings found were named and labelled A to G, starting from the outermost, the large stone circle.

A, the **Outer stone ring** originally held 42 sarsen stones.

B was named the **Fence-ring**, as most of its 34 postholes were relatively small. Cunnington suggested it may have simply been a fence to keep out animals.

C the **Stone-and-post ring** had alternate stones and wooden posts, though not necessarily at the same time. Eventually, after the posts had rotted away, it became just the inner stone ring as recorded by Antiquarians such as Stukeley. There were originally sixteen stones and sixteen posts.

D the **Bank Holiday ring** was named after the day of its discovery; it appeared to have been made of twelve groups of large posts arranged in closely-grouped pairs.

E the **10-foot-ring** was similarly made of eight double post holes.

F the **7-foot-ring** had eight much smaller postholes, each position corresponding to those of ring E.

G the **6-foot-ring** had just six large posts.

The **H holes** are four small postholes like those of the Fence-ring, and one large stone hole, placed midway between the B and C rings. The **H stone** hole, recorded as measuring six feet by two feet, was the largest of all those at the Sanctuary.

Cunnington noted that there were more, similar, postholes at the north side of the outermost A ring of stones. **7a** is positioned between stones 7 and 8; there were three more postholes penetrating below stone holes 7, 8 and 9.

Cunnington reasoned that the posts must therefore have been erected before the stones, so the stones were likely to

have been a second phase. 7a is sited almost, but not quite, due north from the centre of the Sanctuary; it is actually just 4 deg west of north, at 356 deg. There were also two more stones, **X1** and **X2**, just outside the A ring, on its eastern side. Cunnington noted that relative to the centre of the Sanctuary, X2 was aligned with the burial and may have served as a pointer to it.

The table below shows Cunnington's recorded measurements of the seven rings:

	Number of holes	Diameter in feet	Aver. distance between holes in feet	Aver. depth of holes in feet and inches
A Outer stone ring	42	130	9½	-
B Fence-ring	34	65	-	1ft 10"
C Stone-and-post ring	32	45	9¼	4ft 4½"
D Bank Holiday ring	12	34½	9	5ft 1"
E 10-foot-ring	8	21	7½	5ft 1"
F 7-foot-ring	8	15	6¼	2ft 6"
G 6-foot-ring	6	13	6½	5ft 0"

What did the Sanctuary actually look like when its posts were all in place? It seems reasonable that posts may have come before stones, so let us for now ignore the stones and concentrate on the posts.

How high were they? There is a widely-accepted practical formula for calculating the likely height of posts relative to the depth of the postholes supporting them. Farm-workers, fencers and builders generally agree that a hole two feet deep is required to hold a post standing six feet about the ground – a ratio of 1:3. So for a final height of six feet above ground, an eight foot pole is required. If we apply the 1:3 formula to the average depths of the Sanctuary postholes in each of the rings, we get the following heights of posts above ground:-

- B Fence ring: most 5' 6" except two entrance posts at around 10'.
- C Stone & post ring: 13' 1½"
- D Bank Holiday ring: 15' 3"
- E Ten foot ring: 15' 3"
- F Seven foot ring: 7' 6"
- G Six foot ring: 15' 0"
- Centre post: 10' 6"

Remember that these are *maximum* heights above ground, and for poles that are *free-standing*. If the poles support lintels, then each pole will gain extra support from its neighbours. An extreme example of this is the standard utility pole used in the USA, which is forty feet high but mounted in a hole only six feet deep: each pole is partly supported by the overhead cables it carries. The 1:3 formula is also meant for modern poles, which may be planed to reduce the natural taper. If the sanctuary used natural tree trunks they may have tapered considerably, with tops that were much thinner than the bases: if so, the ratio may have been 1:4 or greater. But this is all assuming that the poles were erected the right way up – the Sanctuary may have been built from tree trunks mounted upside down with their roots in the air, as found in *Seahenge* at Holme-next-the-Sea in Norfolk. If this was the case then the heights would be far less.

There is a further caveat: when considering structures built for some ritual or religious purpose, common sense and practicality cannot be assumed. Many religious buildings are deliberately 'over-engineered' to absurd degrees. Still, despite all this uncertainty, the projected pole heights give us at least something to work from.

Ring B, the 'Fence ring', appears to have been up to 5 ft 6" high – about the height of a man. This would seem to support Cunnington's view that it was simply a fence to keep animals out of the main structure. If the poles supported wattle panels, they may have served to obscure any rituals that went on inside the structure from prying eyes on the outside.

The diameter of most of the posts is not known for certain, since Cunnington only recorded the four postpipes of G, the 6-foot ring, which were about 12" in diameter and sitting in holes about 24" wide at the bottom. She wrote that several other postpipes were found but curiously, gave no dimensions for them. Is this because they were also 12" across? Certainly most of the other postholes are also around 24" wide at the bottom. It must have been extraordinarily difficult digging deep and narrow holes into chalk using Neolithic tools. Antler picks are quite unsuitable for such a job, so perhaps wooden poles were used, sharpened to a point and hardened by fire? Using hammer stones, they could be used as chisels, but even just removing the spoil would not be easy from a hole five feet deep. Cunnington's plans show the bottoms of the holes only – they were much wider at ground level, which is not so surprising, considering the challenge of digging them. After the poles were lowered into position the space around them was filled with packing material and rammed solid for stability; this too, must have been a difficult task, yet it was done so well that the archaeologists had a great deal of trouble differentiating between the packing material and the natural chalk around it.

The oval-shaped holes of rings D and E caused considerable confusion at the time of their excavation. The holes were first thought to be elliptical because each had held two poles side by side: the few seen in cross section appeared to be 'stepped' where the two poles had been sunk to different depths. In 1930 it was generally believed that both poles of each pair had stood simultaneously; Cunnington endorsed the suggestion that this may have been so they could support lintels, like Stonehenge's trilithons. Cunnington's plan shows the postholes as ovals, each representing two posts, but the concrete markers we see today indicate two separate posts in each position.

From more recent excavation of a small part of the Sanctuary and a reappraisal of the 1930 evidence, it now seems that the poles of each 'pair' were *not* standing simultaneously, as their holes are intercut; they were not even pairs, as some had been re-cut several times: they represented single poles that had been re-positioned. Only the poles of rings D and E, and apparently not the other rings, had been removed and re-erected in this way. Mike Pitts, who led the 1999 excavation, concluded that this re-cutting may have been a deliberate and continual process over time (occurring perhaps annually) that had ritual significance (Pitts 1999 WAM). Alternatively, the builders may just not have been happy with the positioning, and re-sited the poles several times until they were thought to be right. Pitts's report includes an interpretational cross-section of hole E4, which shows five cuts.

Cunnington's reporting of the 1930 excavation is frustrating in its lack of detail. Her excavation of Woodhenge a few years earlier was reported much more fully, with plans and sections of postholes. (Cunnington, 1929, "Woodhenge") Some show the postpipes, which all appear to have been around half the diameter of the holes they occupied and not always positioned centrally in the hole. There are differences, as some of Woodhenge's postholes have ramps dug at one side as an aid to erecting the poles, which must have been bigger and heavier than those of the Sanctuary. Generally though, the construction of both monuments appears to have been very similar. Some of the Woodhenge postholes were also elliptical: the sectional diagrams also indicate that some had 'steps' in their bases. Cunnington's interpretation was that the holes had been repositioned after being partly dug, so it is curious that similar features at the Sanctuary should have been regarded differently.

For a very long time, it was thought that the Sanctuary may have once been a circular building, its roof supported by the posts. Maud Cunnington disagreed, but the idea had many supporters. Piggott believed that the double postholes were evidence of modifications to the structure as the building grew in size over a number of years. The notion of a building has since fallen from favour, partly because many more timber circles have been discovered since 1930: some clearly could not have been buildings. The Great Circle of Stanton Drew, for instance, measures 370ft (113m) in diameter and probably contained nine concentric rings of posts; even bigger timber monuments have been found elsewhere in Europe. Some writers have nonetheless speculated in great detail on how the Sanctuary may have appeared as a building. ("The 'Sanctuary', Avebury, An Architectural Re-assessment" 1999, Derrick Lees, in WANH Vol 92, pp. 1-6)

Snail Shells

Cunnington found a large quantity of snail shells at the Sanctuary; the snails were all local species that live in damp conditions, some of them underwater. (WAM P 332–5) To some, the shells indicated that the Sanctuary was once a roofed building, thatched with reeds from the nearby river Kennet: the shells were thought to have been accidentally transported with the reeds. But there could be another explanation. The Sami people of Scandinavia uphold traditions that they claim date back many thousands of years, such as revering *sieidis* – unusual wild places with some special feature, such as an unusually-shaped rock or tree. Regarded by the Sami as gateways to the spirit world, and points of spiritual focus that should be worshipped, *sieidis* were once venerated by strewing greenery around them – pine branches, grass or leaves. Perhaps the Sanctuary too was once venerated by the strewing of greenery from the river?

There is good reason to suppose that the Sanctuary's posts held lintels. Stonehenge was built of worked sarsen stone using similar jointing techniques to those used in woodwork; this has long been thought to suggest that the building of stone monuments developed from an earlier tradition of building similar structures in timber. In Bargerosterveld, the Netherlands, a graceful wooden structure interpreted as a shrine or temple was found preserved in a raised bog: it was carbon-dated to the Late Bronze Age, between 1400 and 1050 BC. There are four upright timbers holding two lintels of planks, which protrude from the corners and are shaped to curve upwards like cattle horns: the overall appearance is rather Japanese. The timbers were joined using mortice and tenon joints and secured with pegs. ("Stonehenge and Timber Circles" 2005, Alex Gibson) The Sanctuary may have been constructed similarly, but there are many other possibilities – perhaps the poles were freestanding, carved and decorated like Native American totem poles?

In reconstructions of the Sanctuary using the estimated pole heights listed above, lintels make an enormous difference. Without them, the structure appears as a random cluster of uprights, almost like a small piece of woodland, with little indication of circularity. This may, of course, have been the intention – some branches may even have been left on the poles. However when lintels are added, the true form becomes apparent and the individual rings can be seen.

Cunnington's 1930 excavation recovered relatively few finds. Pitts's 1999 team excavated only a very small area, yet their improved techniques turned up over a thousand pieces of worked flint, nine flint arrowheads and a bronze awl. Many sherds of pottery were found by both excavations, mostly of the local Grooved Ware style. Some bones were found in the Sanctuary's excavated holes, mainly of food animals such as pig and ox, but in very small quantities. One of Cunnington's most interesting finds was twenty or so fragments of *Niedermendig Lava*, a volcanic stone from the Rhine area of Germany. The lava is very abrasive and was later imported into Britain in large quantities by the Romans, for use in millstones. The pieces found by Cunnington were all small and mostly rounded, showing no signs of use. All were found scattered throughout the lower half of posthole 27 of the Stone-and-post ring. They may, as Cunnington suggested, be the remains of a 'mealing stone', perhaps brought from the Rhineland by immigrants and later broken; or the pieces may have been in their natural state and deposited to make a symbolic connection with a homeland origin in Germany. A journey from the Rhineland area to Avebury would have been possible entirely by boat, using rivers and a short sea crossing.

The question of whether the Sanctuary's stones and posts stood simultaneously is still unresolved. Cunnington thought that stones came later, but noted that the posts' positions must have still been apparent, as the same centre was used to scribe the stone circles; the stones of the C ring alternate with the posts, so their positions must have been known. The inner part of the Sanctuary is really quite small and it is perhaps significant that the diameter of the outer stone circle A is exactly twice that of B, the Fence-ring. Maybe when the former timber structure was immortalised in stone, it was felt necessary to exaggerate its size?

It is not currently possible to date the Sanctuary with any precision. The pottery consisted of Grooved Ware, Peterborough Ware and Beaker sherds, which suggests a date of around 2,500 BC for the main construction. The Beaker burial is thought to have been one of the last events in the monument's life, probably around 2,000 BC.

A recumbent stone?

The mysterious *H Stone* (also known as *H3*) was sited at the south-west of the Sanctuary between rings B and C. It is rarely mentioned in descriptions of the monument, yet it may be an important feature. Cunnington recorded its hole as 72" by 24" which would make it the largest of all the Sanctuary's stones, yet it is not shown on Aubrey or Stukeley's plans. The H Stone's long axis is aligned almost to the X axis running through the monument, though actually skewed 9 deg to the west. The standing stones seen by Aubrey were "four or five feet high" so the H stone, if its base measured six feet by two feet, may actually have been around the same size as the other stones, but lying on its long side. *Recumbent stones* are a feature of many stone circles in north-east Scotland. They are set so their top sides are perfectly flat and level, perhaps for recording the position of extreme moon risings. (Burl, 1980 etc) Could the H Stone also have been a recumbent with a similar function?

From the centre of the Sanctuary, the view over the H stone gives a wide horizon of 202 -215 deg. The sightline at 213 deg (the direction to a horizon point on the summit of Tan Hill) would be very close to the *major standstill* of the moon – the point where it sets furthest south in its eighteen year cycle. The H stone is positioned relative to C, the Stone-and-post ring, in very similar way to recumbent stones in some Scottish stone circles. Old Keig in Aberdeenshire, for example, is aligned almost identically: from the centre of the circle to the centre of Old Keig's recumbent is 212.5 deg. Out of 51 known recumbent stone circles, there are twelve that can be calculated with some assurance to an alignment of between 202 and 215 degrees. The purpose of recumbent stones is not known for certain: it may have been that rather than pointing out the lunar standstill, they were positioned so that the midsummer low full moon could be seen skimming along the top of the stone. (George Currie, pers. comm.) Many recumbent stones in Scotland had a scatter of quartz chips on the ground around them, to reflect the moonlight and enhance this magical effect.

In recent years it has become apparent that there were prehistoric links between Wessex and the north of Scotland - people at Durrington Walls, for example, were feasting on Scottish pigs. There is too, a growing awareness of the importance that Orkney had for the rest of Britain in the Neolithic, with claims that the Barnhouse Settlement there was a 'centre of learning'. Could the Sanctuary's H Stone be evidence of a cultural link between Avebury and Scotland? The H Stone may even have been sited as it is, based only on a traveller's description of Scottish ways. This is quite possible, because although the H Stone looks like a Scottish recumbent, it could not function in the same way, due to Avebury's latitude. Scotland is much further north, so there the midsummer full moon does not actually set; instead it passes just above the horizon, then rises again. In Wiltshire this does not happen - the moon simply sets.

Appendix: Dimensions of the Sanctuary as recorded by Maud Cunnington

Centre post – 42" deep; top diameter 20", bottom diameter 10"

A Outer stone ring

All of the 42 stone holes were detailed individually in Cunnington's WAM report (p 36). Sixteen were described as 'rectangular', thirteen as 'oval' and the rest 'irregular' or 'circular'. Their depths varied between 11" and 33". Most, though not all of the stones, were arranged with their longest axis on the circumference of the circle. Lengths were recorded as between 26" and 69" with an average of 39". Widths were between 18" and 48" with an average of 29".

B Fence-ring

Average depth of holes 22³/₄", varying from 16" to 29". Average bottom diam 12", varying from 9" to 18". Northern entrance post (no 34) 38" deep; southern entrance post (no 33) 43" deep. Both bottom diameters 24".

An unusual amount of broken and fire-flaked sarsen was found in hole 33; fragments of bone in 29; sarsen in 21, pot sherds in 3.

C Stone-and-post ring (posts only) in inches

Pieces of broken and fire-split sarsen and fragments of animal bone were found in the bottom of all 16 postholes; sherds of pottery were rare.

Post number	depth	Diam top	Diam bottom
1	54	42	24
3	46	32	24
5	37	30	24
7	50	36	18
9	56	36	30
11	54	36	27
13	51	39	27
15	55	30	27
17	51	36	30
19	51	33	18
21	48	39	24
23	53	36	18
25	59	36	24
27	60	36	24
29	54	33	24
31	57	30	24

D Bank Holiday ring

Finds were a few fragments of animal bone, some charred; chips of sarsen, many showing signs of fire. Rare sherds of pottery were found throughout these holes.

	Depth outer half	Depth inner half	Width at bottom
1	62	42	50 x 28
2	63	57	52 x 26
3	59	31	42 x 24
4	50	36	40 x 21
5	61	-	24 x 24
6	62	48	48 x 24
7	66	-	54 x 30
8	60	42	51 x 24
9	65	-	36 x 24
10	62	60	46 x 22
11	62	52	40 x 22
12	67	56	40 x 26

E 10-foot-ring

Sherds of pottery found in holes 2 and 4.

	Depth	Width at bottom
1	62	21 x 18
2	61	33 x 18
3	62	36 x 28
4	64	33 x 30
5	56	48 x 24
6	61	21 x 24
7	61	33 x 18
8	60	20 x 18

F 7-foot-ring

Average depth 30", varying from 24" to 43". Top diameters from 12" to 18". Bottom diams all about 6". No finds.

G 6-foot-ring

Postpipes were found in 4 holes, all diameters about 12". Finds as in D ring.

	Depth	Diam at bottom
1	62	24
2	60	24
3	55	24
4	59	24
5	60	21 x 18
6	63	24 x 16

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